

MW7, G-BOKJ, 5 August 1996

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Aircraft Type and Registration:	MW7, G-BOKJ
No & Type of Engines:	1 Rotax 532 piston engine
Year of Manufacture:	1989
Date & Time (UTC):	5 August 1996 at 1930 hrs
Location:	Lords Building Farm, Nr Welshpool
Type of Flight:	Private
Persons on Board:	Crew - 1 - Passengers - None
Injuries:	Crew - None - Passengers -N/A
Nature of Damage:	Propeller, engine and wings
Commander's Licence:	Private Pilot's Licence
Commander's Age:	36 years
Commander's Flying Experience:	70 hours (all of which was on time) Last 90 days - 7 hours Last 28 days - 7 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The MW7 is a home-built high-wing monoplane. The pilot knew the aircraft well but he had not previously flown from this particular farm strip. When used in the north-easterly direction there is a dip in the early part, followed by a level portion about 400 metres long and the remainder slopes downwards. To the west of the strip is the north-south orientated Severn Valley which is flat and about 230 feet amsl. A mile or so east of the river valley is a ridge which also runs roughly north-south and it rises to 1350 feet. The strip, which is about half a mile long and 'a bit bumpy', is located just on the river side of the ridge.

Before take off the pilot checked the wind speed and direction. He assessed these parameters by throwing grass leaves into the air and watching their fall, which was almost vertical. He also noted the movement of leaves on nearby trees which supported his assessment. Overall the wind was light, about 5 kt he surmised, and slightly from the right on departure from the strip. He warmed up the engine for five minutes before taxiing to the level part of the strip where he conducted a high-speed taxi test travelling about 200 yards to check that all was well, which it appeared to be. He then taxied back to the start point and began the take-off run.

The pilot stated that during the take-off run he "built speed slowly" until he had raised the tailwheel whereupon he opened the throttle fully. At 65 kt he raised the aircraft's nose and as it became airborne it swung gently which he immediately corrected. At about that time he realised that the aircraft was not climbing at a rate sufficient to clear the hedge at the end of the field but it was too late to stop within the remaining distance. Faced with a choice of landing back on the strip or clipping the top of the hedgerow, the pilot chose the latter because there was a wire fence immediately in front of the hedge. Impact with the hedge stopped the aircraft and it toppled over to the other side landing on its nose with the tail section propped up by the hedge. The pilot attributed his lack of injury to the five-point harness he was wearing.

After the accident the pilot appreciated that the wind speed was much stronger at the far end of the strip than at the place where he had assessed the wind strength. Moreover, he thought it likely that downdrafts caused by the wind flowing over the ridge were responsible for the lack of climb performance.